

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (original): A boron phosphide-based semiconductor light-emitting device, comprising:
  - a crystalline substrate;
  - a first semiconductor formed on said crystalline substrate, said first semiconductor layer including a light-emitting layer, serving as a base layer and having a first region and a second region different from the first region;
  - a boron phosphide-based semiconductor amorphous layer formed on said first region of said first semiconductor layer, said boron phosphide-based semiconductor amorphous layer including a high-resistance boron phosphide-based semiconductor amorphous layer;
  - a pad electrode formed on said high-resistance boron phosphide-based semiconductor amorphous layer for establishing wire bonding; and
  - a conductive boron phosphide-based crystalline layer formed on said second region of said first semiconductor layer, said conductive boron phosphide-based crystalline layer extending optionally to a portion of said boron phosphide-based semiconductor amorphous layer, wherein said pad electrode is in contact with said boron phosphide-based semiconductor crystalline layer at a portion of said pad electrode above the bottom of said pad electrode.
2. (canceled).

3. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said boron phosphide-based semiconductor amorphous layer has a multilayer structure formed from a boron phosphide-based semiconductor amorphous layer which is formed so as to attain contact with said first semiconductor layer and which is of a conduction type opposite to that of said first semiconductor layer, and a high-resistance boron phosphide-based semiconductor amorphous layer formed on said boron phosphide-based semiconductor amorphous layer having said opposite conduction type.

4. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said boron phosphide-based semiconductor amorphous layer is formed of an undoped boron phosphide-based semiconductor.

5. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 3, wherein the two boron phosphide-based semiconductor amorphous layers constituting the multilayer structure of said boron phosphide-based semiconductor amorphous layer are formed of an undoped boron phosphide-based semiconductor.

6. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said portion of the pad electrode in contact with said conductive boron phosphide-based semiconductor crystalline layer is formed of a material able to form an Ohmic contact with the conductive boron phosphide-based crystalline layer.

7. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 6, wherein said portion of the pad electrode formed of a material able to form

Ohmic contact with the conductive boron phosphide-based crystalline layer extends onto said conductive boron phosphide-based semiconductor crystalline layer.

8. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 6, wherein said pad electrode has a bottom portion formed of a material able to form non-Ohmic contact with said boron phosphide-based semiconductor amorphous layer.

9. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said pad electrode has a bottom portion provided on said boron phosphide-based semiconductor amorphous layer, and an Ohmic electrode portion which is provided on the bottom portion and which has a center coincident with that of the plane shape of the bottom portion.

10. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 9, wherein said Ohmic electrode portion of said pad electrode has a planar area greater than that of the bottom portion of said pad electrode.

11. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 10, wherein said Ohmic electrode portion of said pad electrode extends onto a surface of said conductive boron phosphide-based semiconductor crystalline layer.

12. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said high-resistance boron phosphide-based semiconductor amorphous layer has a resistivity of  $10\ \Omega\cdot\text{cm}$  or more.

13. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 12, wherein said high-resistance boron phosphide-based semiconductor amorphous layer has a resistivity of  $100 \Omega \cdot \text{cm}$  or more.

14. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said boron phosphide-based semiconductor is selected from the group consisting of

$B_\alpha Al_\beta Ga_\gamma In_{1-\alpha-\beta-\gamma} P_{1-\delta} As_\delta$  ( $0 < \alpha \leq 1$ ,  $0 \leq \beta < 1$ ,  $0 \leq \gamma < 1$ ,  $0 < \alpha + \beta + \gamma \leq 1$ ,  $0 \leq \delta < 1$ ) and

$B_\alpha Al_\beta Ga_\gamma In_{1-\alpha-\beta-\gamma} P_{1-\delta} N_\delta$  ( $0 < \alpha \leq 1$ ,  $0 \leq \beta < 1$ ,  $0 \leq \gamma < 1$ ,  $0 < \alpha + \beta + \gamma \leq 1$ ,  $0 \leq \delta < 1$ ).

15. (previously presented): A boron phosphide-based semiconductor light-emitting device as set forth in claim 1, wherein said boron phosphide-based semiconductor is selected from the group consisting of boron monophosphide (BP), boron gallium indium phosphide (compositional formula:  $B_\alpha Ga_\gamma In_{1-\alpha-\gamma} P$ ;  $0 < \alpha \leq 1$ ,  $0 \leq \gamma < 1$ ), or a mixed-crystal compound of boron nitride phosphide (compositional formula:  $BP_{1-\delta} N_\delta$ ;  $0 \leq \delta < 1$ ) or boron arsenide phosphide (compositional formula:  $B_\alpha P_{1-\delta} As_\delta$ ;  $0 \leq \delta < 1$ ).

16. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 6, wherein said conductive boron phosphide-based crystalline layer is a p-type conductivity layer and said portion of said pad electrode in contact with said conductive boron phosphide-based crystalline layer is selected from the group consisting of Au-Zn and Au-Be.

17. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 6, wherein said conductive boron phosphide-based crystalline layer is an n-type conductivity layer and said portion of said pad electrode in contact with said conductive boron

phosphide-based crystalline layer is selected from the group consisting of Au-Ge, Au-Sn and Au-In.

18. (original): A boron phosphide-based semiconductor light-emitting device as set forth in claim 8, wherein said boron phosphide-based amorphous layer is a p-type conductivity layer and said portion of said pad electrode in contact with said conductive boron phosphide-based crystalline layer is selected from the group consisting of Au-Ge, Au-Sn, Au-In, Ti, Mo, V, Ta, Hf and W.

19. (currently amended): A boron phosphide-based semiconductor light-emitting device as set forth in claim 8, wherein said boron phosphide-based amorphous layer is a ~~p-type~~ n-type conductivity layer and said portion of said pad electrode in contact with said conductive boron phosphide-based crystalline layer is selected from the group consisting of Au-Zn, Au-Be, Au-In, Ti, Mo, V, Ta, Hf and W.

20. (canceled).

21. (canceled).